

CP Pump Cart with Spray Pressure Control

Customer Product Manual

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**For parts and technical support, call the Industrial Coating
Solutions Customer Support Center at (800) 433-9319 or
contact your local Nordson representative.**

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Contact Us

Nordson Corporation welcomes requests for information, comments, and inquiries about its products. General information about Nordson can be found on the Internet using the following address:

<http://www.nordson.com>

<http://www.nordson.com/en/global-directory>

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Change Record

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Safety

Introduction

Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to persons operating or servicing equipment.

Qualified Personnel

Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

Intended Use

Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include:

- using incompatible materials
- making unauthorized modifications
- removing or bypassing safety guards or interlocks
- using incompatible or damaged parts
- using unapproved auxiliary equipment
- operating equipment in excess of maximum ratings

Regulations and Approvals

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

Personal Safety

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment. Before adjusting or servicing moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.
- Relieve (bleed off) hydraulic and pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- While operating manual spray guns, make sure you are grounded. Wear electrically conductive gloves or a grounding strap connected to the gun handle or other true earth ground. Do not wear or carry metallic objects such as jewelry or tools.
- If you receive even a slight electrical shock, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.
- Obtain and read Safety Data Sheets (SDS) for all materials used. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.
- Make sure the spray area is adequately ventilated. To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.

High-Pressure Fluids

High-pressure fluids, unless they are safely contained, are extremely hazardous. Always relieve fluid pressure before adjusting or servicing high pressure equipment. A jet of high-pressure fluid can cut like a knife and cause serious bodily injury, amputation, or death. Fluids penetrating the skin can also cause toxic poisoning.

If you suffer a fluid injection injury, seek medical care immediately. If possible, provide a copy of the SDS for the injected fluid to the health care provider.

The National Spray Equipment Manufacturers Association has created a wallet card that you should carry when you are operating high-pressure spray equipment. These cards are supplied with your equipment. The following is the text of this card:



WARNING: Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor that you suspect an injection injury.
- Show them this card
- Tell them what kind of material you were spraying

MEDICAL ALERT — AIRLESS SPRAY WOUNDS: NOTE TO PHYSICIAN

Injection in the skin is a serious traumatic injury. It is important to treat the injury surgically as soon as possible. Do not delay treatment to research toxicity. Toxicity is a concern with some exotic coatings injected directly into the bloodstream.

Consultation with a plastic surgeon or a reconstructive hand surgeon may be advisable.

The seriousness of the wound depends on where the injury is on the body, whether the substance hit something on its way in and deflected causing more damage, and many other variables including skin microflora residing in the paint or gun which are blasted into the wound. If the injected paint contains acrylic latex and titanium dioxide that damage the tissue's resistance to infection, bacterial growth will flourish. The treatment that doctors recommend for an injection injury to the hand includes immediate decompression of the closed vascular compartments of the hand to release the underlying tissue distended by the injected paint, judicious wound debridement, and immediate antibiotic treatment.

Fire Safety

To avoid a fire or explosion, follow these instructions.

- Ground all conductive equipment. Use only grounded air and fluid hoses. Check equipment and workpiece grounding devices regularly. Resistance to ground must not exceed one megohm.
- Shut down all equipment immediately if you notice static sparking or arcing. Do not restart the equipment until the cause has been identified and corrected.
- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored. Do not heat materials to temperatures above those recommended by the manufacturer. Make sure heat monitoring and limiting devices are working properly.
- Provide adequate ventilation to prevent dangerous concentrations of volatile particles or vapors. Refer to local codes or your material SDS for guidance.
- Do not disconnect live electrical circuits when working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Shut off electrostatic power and ground the charging system before adjusting, cleaning, or repairing electrostatic equipment.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.

Halogenated Hydrocarbon Solvent Hazards

Do not use halogenated hydrocarbon solvents in a pressurized system that contains aluminum components. Under pressure, these solvents can react with aluminum and explode, causing injury, death, or property damage. Halogenated hydrocarbon solvents contain one or more of the following elements:

<u>Element</u>	<u>Symbol</u>	<u>Prefix</u>
Fluorine	F	"Fluoro-"
Chlorine	Cl	"Chloro-"
Bromine	Br	"Bromo-"
Iodine	I	"Iodo-"

Check your material SDS or contact your material supplier for more information. If you must use halogenated hydrocarbon solvents, contact your Nordson representative for information about compatible Nordson components.

Action in the Event of a Malfunction

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out system electrical power. Close hydraulic and pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the system.

Disposal

Dispose of equipment and materials used in operation and servicing according to local codes.

Description

See Figure 1. This manual covers all versions of the CP pump cart assembly with spray pressure control (SPC):

2 Spray Pressure Control System	115 V
	230 V
3 Spray Pressure Control System	115 V
	230 V
4 Spray Pressure Control System	115 V
	230 V

Refer to the *Parts* section for system part numbers.

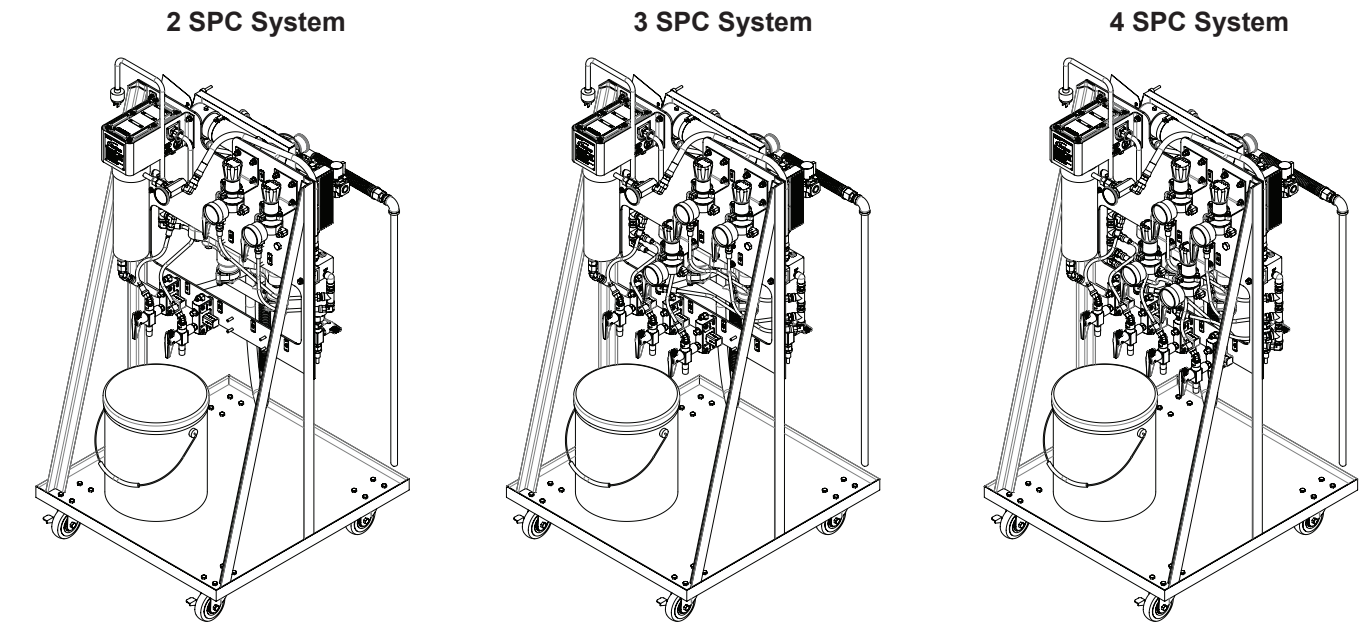


Figure 1 CP Pump Cart Assemblies with Spray Pressure Control

System Components

See Figure 2 and refer to Table 1 for system components.

NOTE: The system is designed to be used and connect up to traditional inside spray machines using the MEG® II spray applicator.

For component operation, maintenance, repair, and troubleshooting, refer to the applicable component manual.

Table 1 System Components

Item	Description	Note
1	NH-4 heater	
2	Interconnecting hoses	
3	Bucket	A
4	Diaphragm regulator, 0–900 psi	
5	eZSPC manifolds	
6	Filter - high pressure single element, 0.006 in.	
7	CP pump - waterborne	
8	Siphon hose	
NS	Hoses for spray applicator connections	B

NOTE: A. Not included with system. Shown for reference only.

B. Shipped loose with system.

NS: Not Shown

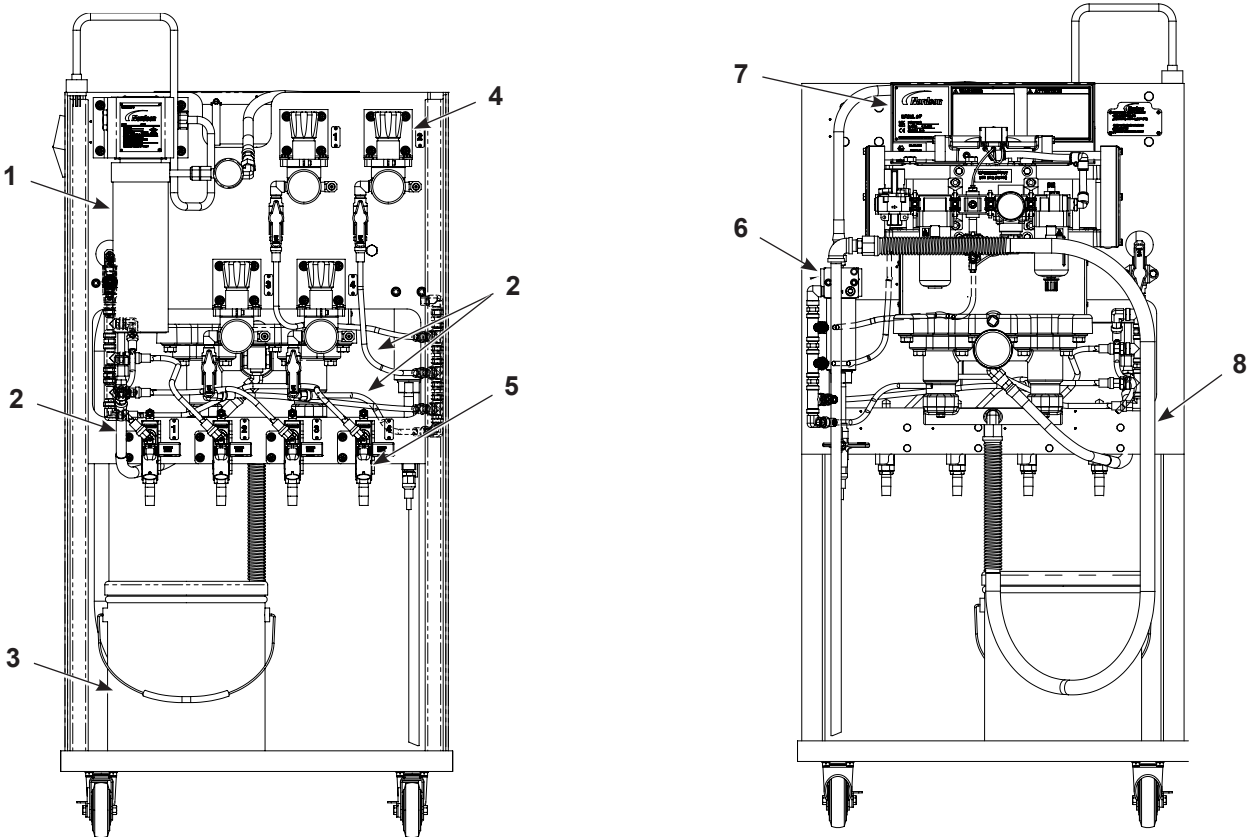


Figure 2 System Components (shown with 4 SPC System)

Specifications

Input Air Requirement to Pump:	1/2-in. ID minimum supply hose
Input Air CFM Requirement:	80 psi, 12 CFM (0.34 m ³ /min)
Heater Wattage at Voltage:	1700 W
Maximum System Output Pressure:	900 psi (regulator maximum out)
Maximum Cart Weight:	< 338 lb (153 kg)
NOTE: The CP pump is capable of generating 1500 psi (103 bar) to the input of the regulators.	

Dimensions

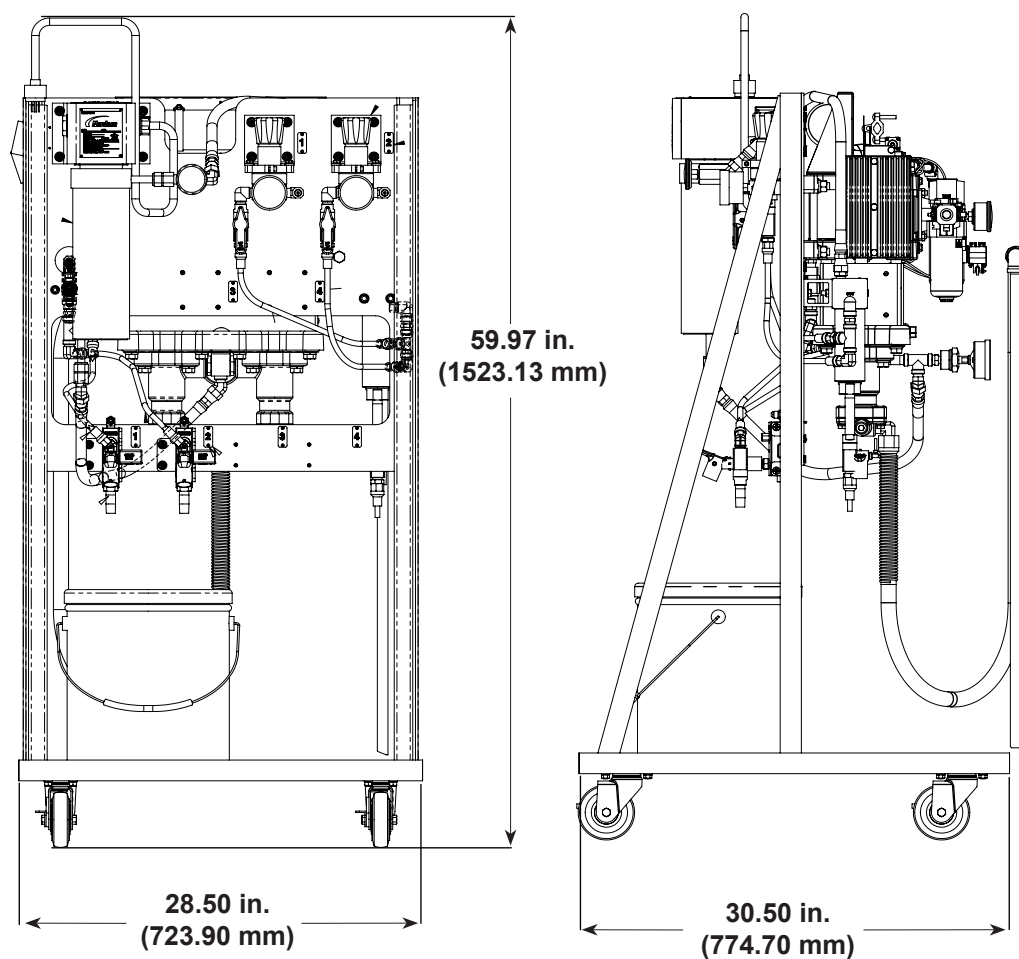
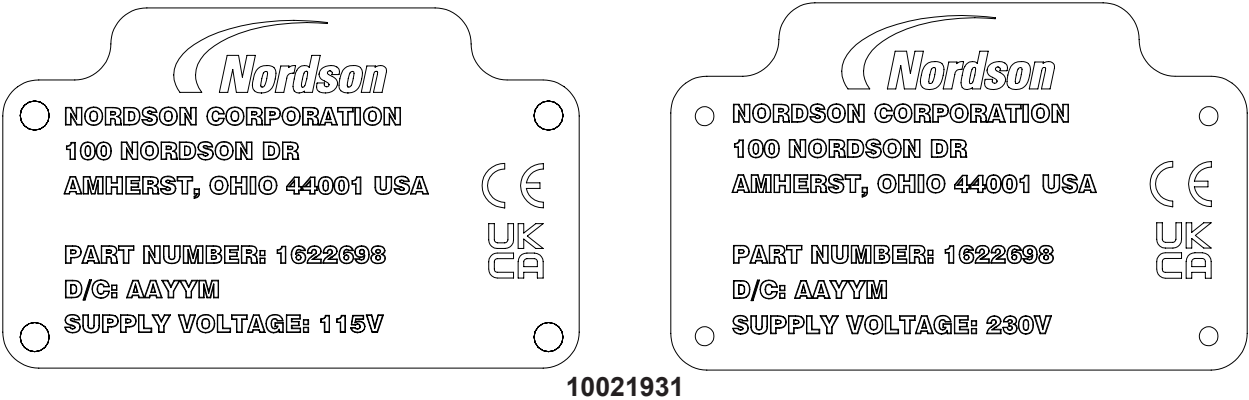


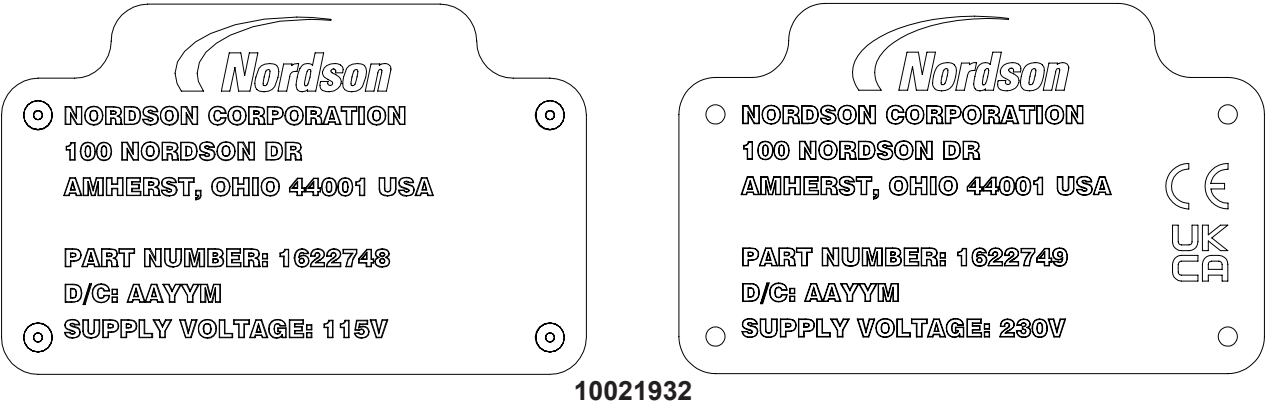
Figure 3 Dimensions

Applicator Certification Labels

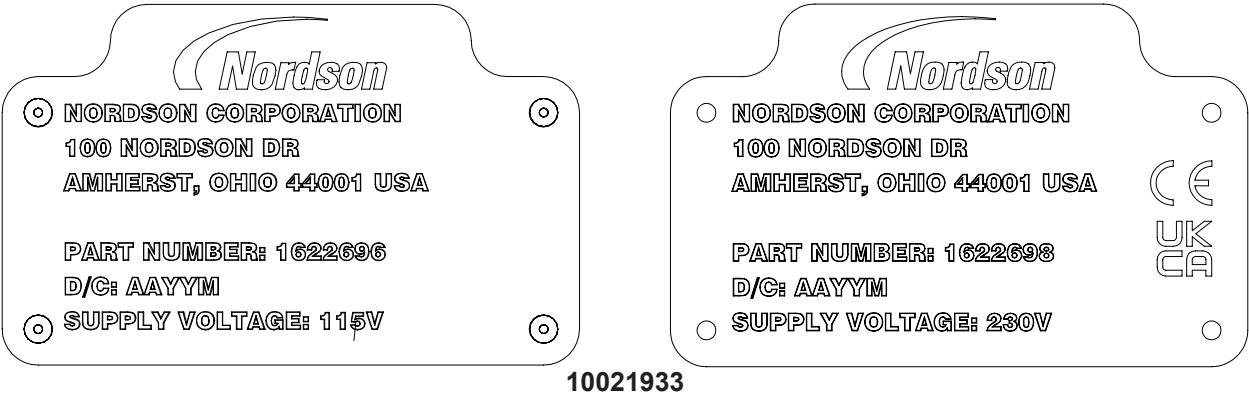
2 Spray Pressure Control Systems for 115 V and 230 V



3 Spray Pressure Control Systems for 115 V and 230 V



4 Spray Pressure Control Systems for 115 V and 230 V



Installation

The system comes preassembled and packed in a custom re-useable crate.

The customer is required to do the following:

1. Install the cable and plug (both supplied by customer) for the heater (1) connection. Refer to the heater manual for additional wiring and installation information.
2. Connect the eZSPC manifolds' (4) input to the return connection on applicator.
3. Connect the regulator (2) output to the spray applicator supply connection.
4. Ensure that the heater (1) and pump (5) are connected to a true earth ground prior to startup.
5. Connect the 4 ft hose (shipped loose with cart) to the return connection point (3) and run the hose back to the coating/siphon bucket or waste bucket.
6. Once all system connections are made, (pneumatic, electrical, hydraulic), purge the system of air. Reference the *CP Pump* manual for additional pump start up procedures.

NOTE: Best practice for air purging is to siphon and return to the same coating bucket or tank. This is a self purging circuit with the SPC manifolds returning fluid at low pressure back to the bucket or tank.

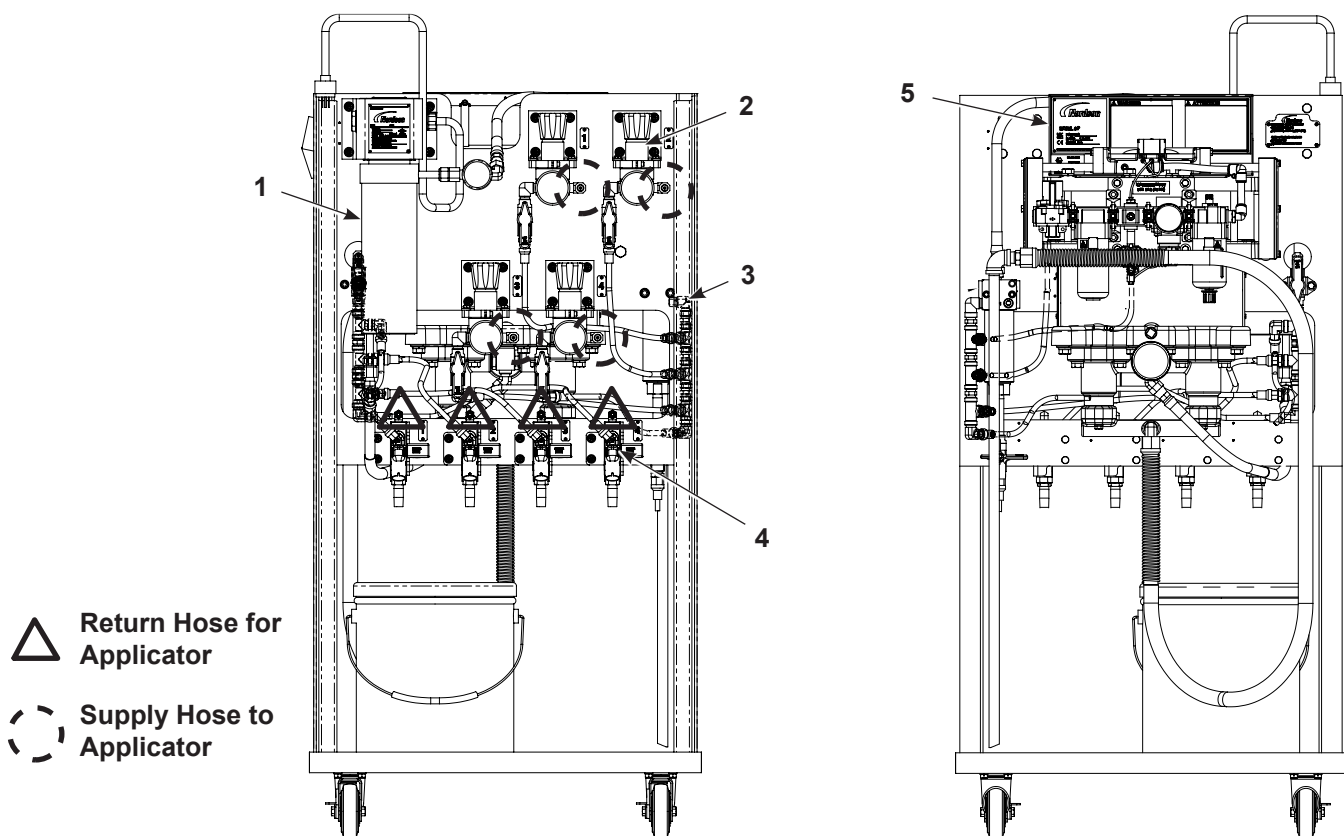


Figure 4 Connections

- | | | |
|---|----------------------------|------------------------|
| 1. NH-4 heater | 3. Return connection point | 5. CP pump, waterborne |
| 2. Pressure reducing regulator (0–900 psi output) | 4. eZSPC manifold | |

Operation

For component operation, maintenance, repair, and troubleshooting, refer to the applicable component manual.

Parts

To order parts, call the Nordson Industrial Coating Systems Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

Item	Part	Description	Quantity	Note
—	1622103	CART, CP, filter, regulator, eZSPC, heater 115 V, 2 spray pressure control	—	
—	1622697	CART, CP, filter, regulator, eZSPC, heater 230 V, 2 spray pressure control	—	
—	1622748	CART, CP, filter, regulator, eZSPC, heater 115 V, 3 spray pressure control	—	
—	1622749	CART, CP, filter, regulator, eZSPC, heater 230 V, 3 spray pressure control	—	
—	1622696	CART, CP, filter, regulator, eZSPC, heater 115 V, 4 spray pressure control	—	
—	1622698	CART, CP, filter, regulator, eZSPC, heater 230 V, 4 spray pressure control	—	
1	712905	• HEATER, NH-4, 115 V, stainless steel	1	A
	238502	• HEATER, NH-4, 230 V, stainless steel, Baseefa	1	B
2	1009069	• REGULATOR, diaphragm, with bracket and guage	AR	
3	1620559	• VALVE, eZSPC, bypass/orifice, assembly, 0.008 in.	AR	
4	338182	• FILTER, stainless steel, 3000 psi valve	1	
5	249351	• PUMP, stainless steel waterborne CP	1	

NOTE: A. Used on 115 V cart systems.

B. Used on 230 V cart systems.

AR: As Required

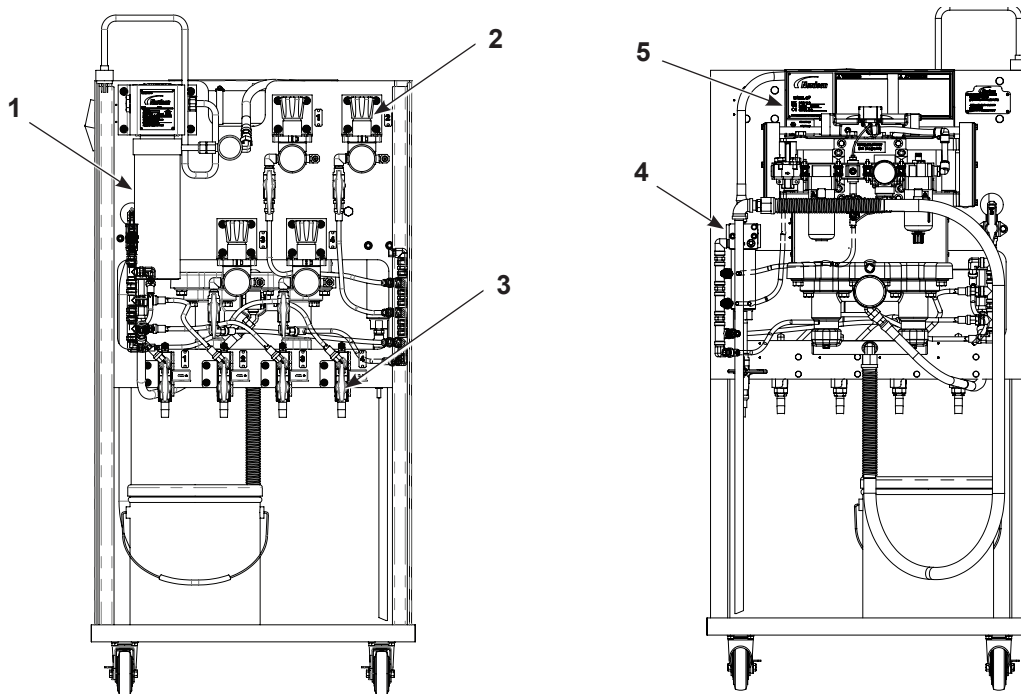


Figure 5 Spare Parts

EU DECLARATION of Conformity

This Declaration is issued under the sole responsibility of the manufacture.

Product: CP Cart

Models: 2x SPC, 3x SPC, 4x SPC

Description: Mobile Pumping System that utilizes a high pressure pump, heater, filter, regulator and circulation manifold with fixed orifice.

Applicable Directives:

2006/42/EC (Machinery Directive)
2014/35/EU (Low Voltage Directive)

Current Versions of These Standards / Norms Used for Compliance:

EN/ISO 12100
EN60204

Principles:

This product has been manufactured according to good engineering practices.
The product specified conforms to the directive and standards described above.

Quality System DNV – ISO9001 Certified



Date: 16 July 2024

Jeremy Krone
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Amherst, Ohio, USA

Nordson Authorized Representative in the EU

Contact: Operations Manager
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Heinrich-Hertz-Straße 42-44
D-40699 Erkrath



UK DECLARATION of Conformity

This Declaration is issued under the sole responsibility of the manufacture.

Product: CP Cart

Models: 2x SPC, 3x SPC, 4x SPC

Description: Mobile Pumping System that utilizes a high pressure pump, heater, filter, regulator and circulation manifold with fixed orifice.

Applicable UK Regulations

Supply Machinery Safety Regulations 2008

Electrical Equipment Safety Regulations 2016

Standards Used for Compliance:

EN/ISO 12100

EN60204

Principles:

This product has been manufactured according to good engineering practice.

The product specified conforms to the directive and standards described above.

Quality System DNV – ISO9001 Certified



Date: 16 July 2024

Jeremy Krone

Supervisor Product Development Engineering

Industrial Coating Systems

Amherst, Ohio, USA

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Contact: Technical Support Engineer
Nordson UK Ltd.; Unit 10 Longstone Road
Heald Green; Manchester, M22 5LB.
England



EU DECLARATION of Conformity

Product: NH-4 Liquid Heater

Models: NH-4, Stainless Steel and Aluminum Models.

Description: This is a heater used for heating liquids before they are sprayed or dispensed from an applicator. These liquids could be flammable or non-flammable.

This Declaration is issued under the sole responsibility of the manufacture.

Applicable Directives:

2006/42/EC - Machinery Directive

2014/35/EU - Low Voltage Directive

2014/34/EU - ATEX equipment for use in potentially explosive atmospheres

Standards Used for Compliance:

EN12100 (2010) EN60079-0 (2018)

EN60204 (2018) EN60079-1 (2014)

Principles:

This product has been designed and manufactured to the directive and standards / norms described above.

Type of Protection:

- Ex db IIB T3 Gb

ATEX Product Certificate:

- SGS Fimko Oy, NB 0598 (Helsinki Finland) – BAS00ATEX2170

ATEX Quality System Certificate

- SGS Fimko Oy, NB 0598 (Helsinki Finland)



Date: 08Aug24

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Person authorized to compile the relevant technical documentation.

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Nordson Corporation • 100 Nordson Dr, Amherst, Ohio 44001 • USA

DOC13029-05

UK DECLARATION of Conformity

Product: NH-4 Liquid Heater

Models: NH-4, Stainless Steel and Aluminum Models.

Description: This is a heater used for heating liquids before they are sprayed or dispensed from an applicator. These liquids could be flammable or non-flammable.

This Declaration is issued under the sole responsibility of the manufacture.

Applicable UK Regulations:

Supply Machinery Safety 2008

Equipment & Protective Systems Intended for use in Potentially Explosive Atmosphere Regulation 2016

UKSI 2016: 1107 (as amended)

Electrical Equipment (Safety) Regulations 2016

Standards Used for Compliance:

EN12100 (2010) EN60079-0 (2018)

EN60204 (2018) EN60079-1 (2014)

Principles:

This product has been designed and manufactured to the Regulations & Norms described above.

Type of Protection:

- Ex db IIB T3 Gb

EX Product Certificate:

- Baseefa (Buxton, Derbyshire, UK) – BAS21UKEX0335

Quality System Certificate

- SGS Baseefa NB 1180 (Buxton, Derbyshire, UK)



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DOC13038-02

EU DECLARATION of Conformity

Product: Dual Piston Pump

Models: CP Series Pumps

This Declaration is issued under the sole responsibility of the manufacture.

Description: This is an air operated, horizontally mounted, dual pump for high speed operations.

Applicable Directives:

2006/42/EC - Machinery Directive

2014/34/EU - ATEX Directive

Standards Used for Compliance:

EN/ISO12100 (2010)

EN/ISO80079-36 (2016)

EN/ISO80079-37 (2016)

EN1127-1 (2019)

EN809 : 1998+A1:2009

Flammable Atmosphere Marking: Ex h IIB T6 Gb

Tech File: Sira / CSA Group, NB 2813 (Arnhem, Netherlands)

DNV - ISO9001

ATEX Quality Notification – SGS Fimko Oy, NB 0598 (Helsinki Finland)

Quality System DNV – ISO9001 Certified



Date: 16Dec2024

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DOC12005-08

UK DECLARATION of Conformity

Product: Dual Piston Pump

Models: CP Series Pumps

This Declaration is issued under the sole responsibility of the manufacture.

Description: This is an air operated, vertically mounted, piston pump for high speed operations.

Applicable UK Regulations:

Supply Machinery Safety Regulation 2008

Equipment & Protective Systems Intended for use in Potentially Explosive Atmosphere Regulation 2016

Standards Used for Compliance:

EN/ISO12100 (2010)

EN/ISO80079-36 (2016)

EN/ISO80079-37 (2016)

EN1127-1 (2019)

EN809 : 1998+A1:2009

Flammable Atmosphere Marking: Ex h IIB T6 Gb

Tech File: Sira / CSA Group, NB 0518 (Hawarden, UK)

DNV - ISO9001

Quality Notification – SGS Baseefa, NB 1180 (Buxton, Derbyshire, UK)

Quality System DNV – ISO9001 Certified



Date: 16Dec2024

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DOC12033-04